

# Markus Lenz

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/876690/publications.pdf>

Version: 2024-02-01

66  
papers

3,330  
citations

147801

31  
h-index

149698

56  
g-index

68  
all docs

68  
docs citations

68  
times ranked

3975  
citing authors

#	ARTICLE	IF	CITATIONS
1	Environmental Selenium Research: From Microscopic Processes to Global Understanding. Environmental Science & Technology, 2012, 46, 571-579.	10.0	348
2	The essential toxin: The changing perception of selenium in environmental sciences. Science of the Total Environment, 2009, 407, 3620-3633.	8.0	343
3	Biotechnological strategies for the recovery of valuable and critical raw materials from waste electrical and electronic equipment (WEEE) – A review. Journal of Hazardous Materials, 2019, 362, 467-481.	12.4	215
4	Selenate removal in methanogenic and sulfate-reducing upflow anaerobic sludge bed reactors. Water Research, 2008, 42, 2184-2194.	11.3	133
5	Comparative effects of zinc oxide nanoparticles and dissolved zinc on zebrafish embryos and eluthero-embryos: Importance of zinc ions. Science of the Total Environment, 2014, 476-477, 657-666.	8.0	123
6	Biotechnologies for critical raw material recovery from primary and secondary sources: R&D priorities and future perspectives. New Biotechnology, 2015, 32, 121-127.	4.4	111
7	<i>ipso</i> -Hydroxylation and Subsequent Fragmentation: a Novel Microbial Strategy To Eliminate Sulfonamide Antibiotics. Applied and Environmental Microbiology, 2013, 79, 5550-5558.	3.1	105
8	Rhizobacteria and plant symbiosis in heavy metal uptake and its implications for soil bioremediation. New Biotechnology, 2017, 39, 125-134.	4.4	105
9	Release of antimony from contaminated soil induced by redox changes. Journal of Hazardous Materials, 2014, 275, 215-221.	12.4	101
10	Characterization of heavy metal toxicity in some plants and microorganisms – A preliminary approach for environmental bioremediation. New Biotechnology, 2020, 56, 130-139.	4.4	94
11	Colloidal Properties of Nanoparticulate Biogenic Selenium Govern Environmental Fate and Bioremediation Effectiveness. Environmental Science & Technology, 2013, 47, 2401-2407.	10.0	90
12	Re-using bauxite residues: benefits beyond (critical raw) material recovery. Journal of Chemical Technology and Biotechnology, 2018, 93, 2498-2510.	3.2	88
13	Terrestrial selenium distribution in China is potentially linked to monsoonal climate. Nature Communications, 2014, 5, 4717.	12.8	87
14	Magnesium sensing via LFA-1 regulates CD8+ T cell effector function. Cell, 2022, 185, 585-602.e29.	28.9	83
15	Shedding Light on Selenium Biomineralization: Proteins Associated with Bionanominerals. Applied and Environmental Microbiology, 2011, 77, 4676-4680.	3.1	80
16	Natural wetland emissions of methylated trace elements. Nature Communications, 2014, 5, 3035.	12.8	69
17	Thin-Film Photovoltaic Cells: Long-Term Metal(loid) Leaching at Their End-of-Life. Environmental Science & Technology, 2013, 47, 13151-13159.	10.0	65
18	Recycling of Indium From CIGS Photovoltaic Cells: Potential of Combining Acid-Resistant Nanofiltration with Liquid – Liquid Extraction. Environmental Science & Technology, 2014, 48, 13412-13418.	10.0	62

#	ARTICLE	IF	CITATIONS
19	Bioaugmentation of UASB reactors with immobilized <i>Sulfurospirillum barnesii</i> for simultaneous selenate and nitrate removal. <i>Applied Microbiology and Biotechnology</i> , 2009, 83, 377-388.	3.6	59
20	Antimony retention and release from drained and waterlogged shooting range soil under field conditions. <i>Chemosphere</i> , 2015, 134, 536-543.	8.2	50
21	Biological Alkylation and Colloid Formation of Selenium in Methanogenic UASB Reactors. <i>Journal of Environmental Quality</i> , 2008, 37, 1691-1700.	2.0	42
22	Organic photovoltaics: Potential fate and effects in the environment. <i>Environment International</i> , 2012, 49, 128-140.	10.0	42
23	Outdoor fate and environmental impact of polymer solar cells through leaching and emission to rainwater and soil. <i>Energy and Environmental Science</i> , 2016, 9, 1674-1680.	30.8	42
24	Selenium Speciation Assessed by X-Ray Absorption Spectroscopy of Sequentially Extracted Anaerobic Biofilms. <i>Environmental Science &amp; Technology</i> , 2008, 42, 7587-7593.	10.0	41
25	An artificial metalloenzyme for carbene transfer based on a biotinylated dirhodium anchored within streptavidin. <i>Catalysis Science and Technology</i> , 2018, 8, 2294-2298.	4.1	41
26	Methodological approaches for fractionation and speciation to estimate trace element bioavailability in engineered anaerobic digestion ecosystems: An overview. <i>Critical Reviews in Environmental Science and Technology</i> , 2016, 46, 1324-1366.	12.8	40
27	Red mud as secondary source for critical raw materials—Extraction study. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2835-2844.	3.2	38
28	Selenium oxyanion inhibition of hydrogenotrophic and acetoclastic methanogenesis. <i>Chemosphere</i> , 2008, 73, 383-388.	8.2	37
29	Biodegradation of sulfamethoxazole by a bacterial consortium of <i>Achromobacter denitrificans</i> PR1 and <i>Leucobacter</i> sp. GP. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 10299-10314.	3.6	36
30	Antimony leaching from contaminated soil under manganese- and iron-reducing conditions: column experiments. <i>Environmental Chemistry</i> , 2014, 11, 624.	1.5	34
31	Selenium speciation in anaerobic granular sludge. <i>International Journal of Environmental Analytical Chemistry</i> , 2006, 86, 615-627.	3.3	32
32	Ferritin encapsulation of artificial metalloenzymes: engineering a tertiary coordination sphere for an artificial transfer hydrogenase. <i>Dalton Transactions</i> , 2018, 47, 10837-10841.	3.3	28
33	Quantification of Methylated Selenium, Sulfur, and Arsenic in the Environment. <i>PLoS ONE</i> , 2014, 9, e102906.	2.5	28
34	Combined Speciation Analysis by X-ray Absorption Near-Edge Structure Spectroscopy, Ion Chromatography, and Solid-Phase Microextraction Gas Chromatography—Mass Spectrometry To Evaluate Biotreatment of Concentrated Selenium Wastewaters. <i>Environmental Science &amp; Technology</i> , 2011, 45, 1067-1073.	10.0	27
35	Purification and characterization of hydroquinone dioxygenase from <i>Sphingomonas</i> sp. strain TTNP3. <i>AMB Express</i> , 2011, 1, 8.	3.0	27
36	Immobilization of an artificial imine reductase within silica nanoparticles improves its performance. <i>Chemical Communications</i> , 2016, 52, 9462-9465.	4.1	24

#	ARTICLE	IF	CITATIONS
37	Layer-by-layer membrane modification allows scandium recovery by nanofiltration. <i>Environmental Science: Water Research and Technology</i> , 2019, 5, 1683-1688.	2.4	24
38	SORPTION AND DIALYSIS EXPERIMENTS TO ASSESS THE BINDING OF PHENOLIC XENOBIOTICS TO DISSOLVED ORGANIC MATTER IN SOIL. <i>Environmental Toxicology and Chemistry</i> , 2003, 22, 746.	4.3	24
39	Impact of bio-augmentation with <i>Sphingomonas</i> sp. strain TTNP3 in membrane bioreactors degrading nonylphenol. <i>Applied Microbiology and Biotechnology</i> , 2009, 84, 183-189.	3.6	22
40	Analysis of Bioavailability and Induction of Glutathione Peroxidase by Dietary Nanoelemental, Organic and Inorganic Selenium. <i>Nutrients</i> , 2021, 13, 1073.	4.1	21
41	Online Preconcentration-IC-ICP-MS for Selenium Quantification and Speciation at Ultratracers. <i>Environmental Science &amp; Technology</i> , 2012, 46, 11988-11994.	10.0	20
42	Can iron plaque affect Sb(III) and Sb(V) uptake by plants under hydroponic conditions. <i>Environmental and Experimental Botany</i> , 2018, 148, 168-175.	4.2	20
43	Crystallographic, Optical, and Electronic Properties of the Cs <sub>2</sub> AgBi <sub>1-x</sub> In <sub>x</sub> Br <sub>6</sub> Double Perovskite: Understanding the Fundamental Photovoltaic Efficiency Challenges. <i>ACS Energy Letters</i> , 2021, 6, 1073-1081.	17.4	19
44	Selenium speciation in acidic environmental samples: Application to acid rain-soil interaction at Mount Etna volcano. <i>Chemosphere</i> , 2011, 84, 1664-1670.	8.2	17
45	Biological Production of Selenium Nanoparticles from Waste Waters. <i>Advanced Materials Research</i> , 0, 71-73, 721-724.	0.3	14
46	Incineration of organic solar cells: efficient end of life management by quantitative silver recovery. <i>Energy and Environmental Science</i> , 2016, 9, 857-861.	30.8	14
47	Red mud as secondary source for critical raw materials—Purification of rare earth elements by liquid/liquid extraction. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2683-2690.	3.2	14
48	Deterioration of sandstones: Insights from experimental weathering in acidic, neutral and biotic solutions with <i>Acidithiobacillus thiooxidans</i> . <i>Construction and Building Materials</i> , 2020, 246, 118474.	7.2	13
49	Rapid sequestration of perovskite solar cell-derived lead in soil. <i>Journal of Hazardous Materials</i> , 2022, 436, 128995.	12.4	13
50	Rapid metal mobilisation through litter, water and bioweathering as the legacy of historical copper smelting. <i>Journal of Geochemical Exploration</i> , 2019, 206, 106364.	3.2	12
51	Bioleaching and toxicity of metallurgical wastes. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104450.	6.7	12
52	Sulfur K-edge XANES spectroscopy as a tool for understanding sulfur chemical state in anaerobic granular sludge. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012184.	0.4	10
53	Arsenic Mobilization from Historically Contaminated Mining Soils in a Continuously Operated Bioreactor: Implications for Risk Assessment. <i>Environmental Science &amp; Technology</i> , 2016, 50, 9124-9132.	10.0	10
54	Selenium Speciation in Biofilms from Granular Sludge Bed Reactors Used for Wastewater Treatment. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	9

#	ARTICLE	IF	CITATIONS
55	Tellurium and selenium sorption kinetics and solid fractionation under contrasting estuarine salinity and turbidity conditions. <i>Chemical Geology</i> , 2020, 532, 119370.	3.3	9
56	Recovery of scandium from acidic waste solutions by means of polymer inclusion membranes. <i>Hydrometallurgy</i> , 2022, 213, 105916.	4.3	9
57	Sorption and dialysis experiments to assess the binding of phenolic xenobiotics to dissolved organic matter in soil. <i>Environmental Toxicology and Chemistry</i> , 2003, 22, 743-752.	4.3	7
58	Effects of barium on the pathways of anaerobic digestion. <i>Journal of Environmental Management</i> , 2019, 232, 397-403.	7.8	7
59	Redox-stat bioreactors for elucidating mobilisation mechanisms of trace elements: an example of As-contaminated mining soils. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 7635-7641.	3.6	6
60	Renewable Energy from Finite Resources: Example of Emerging Photovoltaics. <i>Chimia</i> , 2019, 73, 874.	0.6	6
61	Biodeterioration Affecting Efficiency and Lifetime of Plastic-Based Photovoltaics. <i>Joule</i> , 2020, 4, 2088-2100.	24.0	6
62	Nanofiltration-Enhanced Solvent Extraction of Scandium from $\text{TiO}_2$ Acid Waste. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6063-6071.	6.7	6
63	Low-Temperature Reactive Aerosol Processing for Large-Scale Synthesis of Selenium Nanoparticles. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 16088-16094.	3.7	5
64	Understanding Selenium Biogeochemistry in Engineered Ecosystems: Transformation and Analytical Methods. , 2017, , 33-56.		4
65	Sulfur Amino Acid Status Controls Selenium Methylation in <i>Pseudomonas tolaasii</i> : Identification of a Novel Metabolite from Promiscuous Enzyme Reactions. <i>Applied and Environmental Microbiology</i> , 2021, 87, e0010421.	3.1	4
66	Assessing global cycling of selenium. , 2013, , 5-6.		1